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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,559	07/31/2001	M. William Bowsher	BOMUHDUS	4965

20738 7590 12/27/2007

THOMAS P O'CONNELL
1026A MASSACHUSETTS AVENUE
ARLINGTON, MA 02476

EXAMINER	
CUNNINGHAM, GREGORY F	
ART UNIT	PAPER NUMBER
2624	

MAIL DATE	DELIVERY MODE
12/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/919,559	BOWSHER ET AL.	
	Examiner	Art Unit	
	Greg F. Cunningham	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-7,9,10,12-16,18,20-23,26,28-31,33-38,40 and 69-73* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *2-7,9,10,12-16,18,20-23,40 and 69-73* is/are allowed.

6)☒ Claim(s) *26,28-31 and 33-38* is/are rejected.

7)☒ Claim(s) *28-30 and 33-37* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications of amendment received 10/25/2007.

2. The disposition of the claims is as follows: claims 2-7, 9, 10, 12-16, 18, 20-23, 26, 28-31, 33-38, 40 and 69-73 are pending in the application. Claims 10, 15, 18, 20, 23, 26,40 and 73 are independent claims. Claims 1, 8, 11, 17, 19, 24-25, 27, 32, 39 and 41-68 have been cancelled.

3. When making claim amendments, the applicant is encouraged to consider the references in their entireties, including those portions that have not been cited by the examiner and their equivalents as they may most broadly and appropriately apply to any particular anticipated claim amendments.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 26 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fenton et al., (US 6,343,264 B1), hereinafter Fenton further in view of Branham et al., (Patent 5,687,737), hereinafter Branham, and further in view of Goldwesser et al., (US 4,737,921), hereinafter Goldwesser.

A. Fenton discloses claim 26, "A universal, ultra-high definition color, light, and object rendering, advising, and coordinating system for displaying colors, objects, and light and

enabling an accurate rendering of a color, room, building, object, landscape, or person, the system comprising:

an image procuring device for procuring input images [Fenton: col. 4, lns. 5-18; particularly corresponding for 'a digital camera of at least the quality of the Kodak DC120'];

a memory device [Fenton: col. 4, lns. 8-18, wherein '96MB of RAM, an 8 M video card, at least a 4 GB hard drive', any or all of which may correspond to "memory device"];

a processor [Fenton: col. 4, lns. 8-9]; and

a display device [Fenton: col. 4, lns. 10-12]; and

a means for providing a display of simulated light sources on the display device to bathe the displayed image in a source of light wherein the means for providing simulated light sources comprises a means for controlling a type of light source to be simulated on the display device from among a plurality of different types of light sources;

wherein the image procuring device, the memory device, the processor, and the display device are calibrated and coordinated to ensure that a color viewed and procured in situ by the image procuring device will be identically displayed on the display device [corresponds to col. 4, lns. 30-59; and col. 7, lns. 22-67, inter alia 'the visualization process with color room environment for presenting and using the color system, to offer a true, focused experience of color'];

whereby a user can predict the appearance of an interior or exterior of a building, home, landscapes, person, or other object or element with accuracy [corresponds to col. 7, lns. 22-44 and col. 8, lns. 1-45, inter alia 'preview of different color options, any of the thousands of carpets in the corporate inventory can be accurately represented on the computer screen, easy to show

the customer that she or he cannot make a color mistake when choosing a carpet from the right color family, true preview]"

However, Fenton does not appear to disclose "a means for providing a display of simulated light sources on the display device to bathe the displayed image in a source of light", but Branham does in col. 7, lns. 33-41 at 'To enhance the three-dimensional appearance of the display, direct and ambient virtual light sources can be defined, and the brightness of each facet will vary depending on the angle between the facet and the direct light source."

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply color selection method and auto parts, structural elements, body parts and personalized presentations disclosed by Fenton in combination with virtual light sources disclosed by Branham, and motivated to combine the teachings because it would allow for such images that can also be provided with shading using virtual light sources (both direct and ambient, simultaneously) to give the depiction a realistic and easily-interpreted image as revealed by Branham in col. 5, lns. 35-53.

However, Fenton does not appear to disclose "wherein the means for providing simulated light sources comprises a means for controlling a type of light source to be simulated on the display device from among a plurality of different types of light sources", but Goldwesser does in col. 9, lns. 1-13 and col. 28, lns. 3-18 at "simulated light source and control"; and Branham furthermore adds in col. 5, lns. 48-53 at 'Such images can also be provided with shading using virtual light sources (both direct and ambient, simultaneously) to give the depiction a realistic and easily-interpreted image which is comparable to what a surgeon or cardiologist would see if they were looking at the heart itself under normal lighting conditions.' Wherein 'virtual light

sources' corresponds to "providing simulated light sources" and '(both direct and ambient, simultaneously)' corresponds to "from among a plurality of different types of light sources".

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply color selection method and auto parts, structural elements, body parts and personalized presentations disclosed by Fenton in combination with virtual light sources disclosed by Branham, and control of simulated light sources disclosed by Goldwesser and motivated to couple the teachings because it would provide for realistic shading effects, three-dimensional perception in the final display can be greatly enhanced by adding shadows to parts of the object being displayed which are obscured from the simulated light source by other parts of the object as revealed by Goldwesser in col. 9, lns. 46-50.

Examiner's Note:

The amended claim element "a means for providing a display of simulated light sources on the display device to bathe the displayed image in a source of light wherein the means for providing simulated light sources comprises a means for controlling a type of light source to be simulated on the display device from among a plurality of different types of light sources" is also taught by Dowling in para. [0065] at "The configuration file can be typed in, or can be put into a graphical user interface that can be used to drag and drop light sources onto a representation of a room. At a step 1204, the developer can create a configuration file that matches the fixtures with true placement relative to a user's coordinate in the real room. For example, once the lighting elements are dragged and dropped in the environment, at a step 1208 the program can associate the virtual lights in the program with the real lights in the environment."; and for "shielded structure" in para. [0038] at "In an embodiment of the invention described herein, the

environment of a user of a computer game includes one or more light systems. As used herein "light systems" should be understood where context is appropriate to comprise all light systems, including LED systems, as well as incandescent sources, including filament lamps, pyro-luminescent sources, such as flames, candle-luminescent sources, such as gas mantles and carbon arc radiation sources, as well as photo-luminescent sources, including gaseous discharges, fluorescent sources, phosphorescence sources, lasers, electro-luminescent sources, such as electro-luminescent lamps, light emitting diodes, and cathode luminescent sources using electronic satiation, as well as miscellaneous luminescent sources including galvano-luminescent sources, crystallo-luminescent sources, kine-luminescent sources, thermo-luminescent sources, triboluminescent sources, sonoluminescent sources, and radioluminescent sources. Light systems may also include luminescent polymers capable of producing primary colors", wherein these various light sources incorporate "shielded structure".

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply simulated light sources disclosed by Fenton, and Branham in combination with virtual light sources, fixtures and shielded structures disclosed by Dowling, and motivated to combine the teachings because it would enhance and take advantage of characteristics of the environment as revealed by Dowling in para. [0006].

(See rejection for dependent claims 36 and 37 below.)

B. Fenton and Branham disclose claim 38, "The system of claim 26 further comprising a portable memory medium for enabling a user to retain and transport procured input images and reference images [Fenton: col. 4, lns. 13-14, wherein 'an equivalent IBM or compatible personal computer' inherently comprises a floppy disk drive, CD drive, and/or diskette drive which

corresponds to "portable memory medium for enabling a user to retain and transport procured input images and reference images"]" supra for claim 26 and [as detailed].

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fenton et al., (US 6,343,264 B1), hereinafter Fenton further in view of Branham et al., (Patent 5,687,737), hereinafter Branham, and further in view of Goldwesser et al., (US 4,737,921), hereinafter Goldwesser, and further in view of Bonello, (US 6,268,860 B1).

A. Fenton, Branham, Branham and Goldwesser disclose claim 31, "The system of claim 26 wherein the means for providing simulated light sources comprises a means for controlling a location and orientation of the light source to be simulated on the display device" supra for claim 26 and [as detailed].

However, Fenton, Branham, Branham and Goldwesser do not appear to disclose, "wherein the means for providing simulated light sources comprises a means for controlling a location and orientation of the light source to be simulated on the display device", but Bonello does in col. 11, lns. 56-61 at 'The illumination situation is determined by the spatial position and the primary beam direction of a plurality of virtual light sources, with the data of one portion of the light sources being stored in a first storage element 8.1, and the data of the remaining light sources being stored in a second storage element 8.2.'.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply simulated light sources disclosed by Fenton, and Branham in combination with virtual light sources, fixtures and shielded structures disclosed by Dowling, coupled with determining position and direction of a plurality of virtual light sources as disclosed

by Bonello, and motivated to combine the teachings because it would reduce the calculation effort because, in each pixel, either only the first portion of the light sources or only the second portion of the light sources is considered according to the local illumination model as revealed by Bonello in col. 11, lns. 62-65.

Allowable Subject Matter

7. Claims 2-7, 9-10, 12-16, 18, 20-23, 40 and 69-73 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Applicant's amended independent claims 10, 18 and 23 stand novel over the related prior art. For instance, the closest related art of Driers et al. (U.S. Patent Number 5,986,670), does allow for a user to arrange, rotate, position, resize, orient and otherwise manipulate the product image objects that are placed on the fixed background image to create a realistic composite image.

However, Dries does not provide for "a means for displaying displayed elements and objects in a unified size scale on the display device wherein the means for displaying displayed elements and objects in a unified size scale automatically adapts the input images and the reference images to a unified, substantially identical scale" as claims in independent claim 18; nor 'a means for automatically adapting the input images and the reference images to a unified, substantially identical scale; and a means for displaying displayed elements and objects in a unified size scale; wherein the image procuring device, the memory device, the processor, and the display device are calibrated and coordinated to ensure that a color viewed and procured in situ by the image procuring device will be identically displayed on the display device; whereby a

user can predict the appearance of an interior or exterior of a building, home, landscape, person, or other object or element with accuracy' as claimed by independent claim 23.

Claims 71, 72 and 22 depend from allowable independent claims 18 and 23, respectively, and therefore are also allowed.

Furthermore Dries does not provide for 'wherein the image procuring device, the memory device, the processor, and the display device are specially calibrated and automatically coordinated to work together to ensure that colors and input images viewed and procured in situ by the image procuring device will be identically displayed on the display device including the input images in an in situ depiction' as claimed in independent claims 10, 20 and 40.

Claims 2-7, 9, 12-14 depend from allowable independent claim 10 and therefore are also allowed. Claim 21 depends from allowable independent claim 20 and therefore is also allowed.

Still furthermore Dries does not provide for 'a means for suggesting one or more reference images based on a user-selected parameter wherein the reference image is automatically coordinated by the processor with the user-selected parameter wherein the user-selected parameter comprises a design goal input by a user wherein the design goal comprises a structural style or a mood effect and wherein the means for suggesting one or more reference images comprises a means for suggesting building elements, decorative elements, and colors that automatically coordinate with the structural style, mood effect, or other design goal input by the user; wherein the image procuring device, the memory device, the processor, and the display device are calibrated and coordinated to ensure that a color viewed and procured in situ by the image procuring device will be identically displayed on the display device;

whereby a user can predict the appearance of an interior or exterior of a building, home, landscape, person, or other object or element with accuracy' as claimed in independent claim 15. Claims 16, 69 and 70 depend from allowable independent claim 15 and therefore are also allowed.

Also Dries does not provide for 'wherein the image procuring device, the memory device, the processor, and the display device are specially calibrated and coordinated to work together to ensure that colors and input images viewed and procured in situ by the image procuring device will be identically displayed on the display device including the input images in an in situ depiction; a means for suggesting one or more reference images based on a user-selected parameter wherein the reference image is automatically coordinated by the processor with the user-selected parameter wherein the user-selected parameter comprises a design goal input by a user wherein the design goal comprises a structural style or a mood effect and wherein the means for suggesting one or more reference images comprises a means for suggesting building elements, decorative elements, and colors that automatically coordinate with the structural style, mood effect, or other design goal input by the user a means for displaying displayed elements and objects in a unified size scale on the display device wherein the means for displaying displayed elements and objects in a unified size scale automatically adapts the input images and the reference images to a unified, substantially identical scale; and
a means for providing a display of simulated light sources on the display device to bathe the displayed image in a source of light wherein the means for providing simulated light sources comprises a means for controlling a type of light source to be simulated on the display device and a means for controlling a location and orientation of the light source to be simulated on the

display device; whereby a user can predict the appearance of an interior or exterior of a building, home, landscape, person, or other object or element with accuracy' as claimed by independent claim 73.

Therefore as claimed by the combined elements of independent claim 10, 15, 18, 20, 23, 40 and 73, the cited references and prior art of record lack separately and in combination the elements of said claims and their associated dependent claims.

8. Claims 28-30 and 33-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments filed 10/25/2007 have been fully considered but they are not persuasive.

It has been show that Fenton, Branham and Goldwesser disclose independent claim 26. Even the amended portion is disclosed, at Goldwesser in col. 9, lns. 1-13 and col. 28, lns. 3-18 at "simulated light source and control"; and Branham furthermore adds in col. 5, lns. 48-53 at 'Such images can also be provided with shading using virtual light sources (both direct and ambient, simultaneously) to give the depiction a realistic and easily-interpreted image which is comparable to what a surgeon or cardiologist would see if they were looking at the heart itself under normal lighting conditions.' Wherein 'virtual light sources' corresponds to "providing

simulated light sources" and '(both direct and ambient, simultaneously)' corresponds to "from among a plurality of different types of light sources".

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Responses

11. Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Inquiries

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory F. Cunningham whose telephone number is (571) 272-7784.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on (571) 272-7778. The Central FAX Number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

G. F. Cunningham

DANIEL MIRIAM
PRIMARY EXAMINER

Gregory F. Cunningham
Examiner, Art Unit 2624

gfc

12/19/2007